ABSTRACT OF THE DISCLOSURE

Method and apparatus for generating positive and negative ions include electrodes that are spaced apart by a gap and that are supplied alternating ionizing voltage at a frequency which causes the generated ions to move within the gap between electrodes and exhibit a resident time in transit that accumulates the ions substantially within the central region of the gap. An electrostatic field, or a flowing stream of air or other gas passing through the gap, transports the generated ions from within the gap. Self-balancing of generated positive and negative ions is accomplished using capacitive coupling of the ionizing voltage to at least one of the electrodes disposed about the gap.